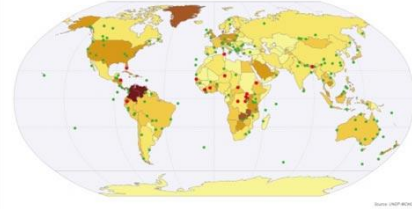


## International Issues in Conservation: A Case Study in Southern Ecuador

By Amy Forsgren

Extent of the world's protected areas and location of World Heritage sites



## Conservation Across the Globe

- Developing countries are often dependent on natural resource extraction
- Outside influences often encourage and assist in conservation processes
- Those most affected are indigenous and poor
- Areas of economic instability and political unrest



## White-Boreno's Forests



## Protected Area Management

- Authoritarian Top-Down Approaches
- Ignored the rights of local communities and often forced groups to people to relocate, sparking heated controversy, creating hardship for locals dependant on protected areas, and fostering distrust between local/indigenous group and the government


## Protected Area Management

- 1980's: Beginning of "grass-roots" and other decentralized approaches to management
- Problems: only token involvement of communities, lack of funds, treat communities as static objects.

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### Introduction to Study


- Ramsar Wetlands proposal designation by UTPL for high Andean watersheds (wetlands) in the Yacuambi region of Ecuador
- Research seeks to uncover information needed for a Ramsar Designation Proposal



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### Introduction to Study cont'd

- Ramsar Convention for Wetlands assumes sustainable "wise-use" as a concept
- Stewardship Approach assumes people will both help and benefit from conservation



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### Stewardship Approach


- The Stewardship Approach stems from the approaches of participatory management, which assumes traditional ecological knowledge (Berkes, 2006) and history with landscape will allow sustainable practices (Clark et al., 2009)



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### Research Questions

- For a mixed Shuar/Quechua/Mestizo area in the Yacuambi, what is the connection to high Andean watersheds in the area?
- Connection to wetlands
- Areas of Significance
- View of "wise-use"




Forest Prioritized Areas on the World Heritage List in the Neotropical Realm

Category	Site Name
BIOSPHERE RESERVE	01. Grand and Uru Valley National Park
	02. Galapagos National Park
	03. Maricao National Park
	04. Yumbi Biosphere Reserve
	05. Rio Palenque Biosphere Reserve
	06. San Juan Biosphere Reserve
	07. Cotacachi Biosphere Reserve
	08. Sumaco Biosphere Reserve
	09. Sumaco and Uru Valley National Park
	10. Yumbi Biosphere Reserve
	11. Yumbi Biosphere Reserve
	12. Yumbi Biosphere Reserve
NATIONAL PARK	13. Galapagos National Park
	14. Galapagos National Park
	15. Galapagos National Park
	16. Galapagos National Park
	17. Galapagos National Park
	18. Galapagos National Park
	19. Galapagos National Park
	20. Galapagos National Park
	21. Galapagos National Park
	22. Galapagos National Park
	23. Galapagos National Park
	24. Galapagos National Park
WORLD HERITAGE SITE	25. Galapagos National Park
	26. Galapagos National Park
	27. Galapagos National Park
	28. Galapagos National Park
	29. Galapagos National Park
	30. Galapagos National Park
	31. Galapagos National Park
	32. Galapagos National Park
	33. Galapagos National Park
	34. Galapagos National Park
	35. Galapagos National Park
	36. Galapagos National Park

### Yacuambi Cantón, Ecuador



Yacuambi Cantón, Ecuador

- Cantón
- Parroquia
- Vías Secundarias
- Ríos
- Vía Principal
- Yacuambi

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## Land-Use



- Grazing
- Agriculture
- Mining
- Roads




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## Demographics

- Shuar
- Mestizo
- Saraguro





(Pohle, 2008)

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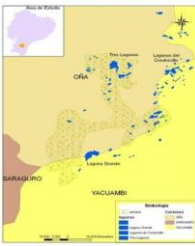
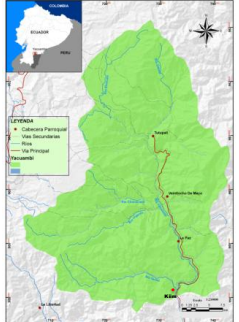
## Data Collection and Analysis

- Semi-structured and Unstructured Interviews (Rubin & Rubin, 2005)
- Participatory Mapping (Naughten-Treves, 2006; Sletto, 2009)
- Focus Groups (Bernard, 2006; Sletto, 2009)
- Network and Purposive Sampling (Silverman, 2005)
- Coding (Silverman, 2005)
- Member checking and peer debriefing (Baxter & Eyles, 1997)



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## Yacuambi

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## Connection to Wetlands


- Daily use of water
- Community development has followed water
- Each land plot has its own stream
- Current abundance has not necessitated a management plan
- Locals notice less rain, longer summers, and less flowing water



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## Connections to Wetlands

- Wetlands known because of migratory travel on accessible trails
- Accessed rarely through migration and recreational purposes
- For most, the wetlands are cold, distant areas
- Some consider them temperamental



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## Findings: Areas of Importance

- Areas of Utility
  - Lakes and Waterfalls
  - Healing Qualities
  - Tourism Prospects
- Social Ties
  - Identify with people
  - Still discovering landscape



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## Wise Use and Disturbance

- Deforestation has pushed the topic of preservation of trees around springs
- Do not largely view that Livestock and Agriculture have impact on water.
- Roads have both positive and negative impacts



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## Mining

- Associated with Machinery
- Largely people outside the community
- Artisanal Mining



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## View of "Wise-Use"

- Tourism
- Conservation/Utility
- Outside involvement from multiple actors and different perceptions vary



23 La Paz and Kiim



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## Stewardship Approach

- Interconnected network between national, regional and local economy and policy
- Ecosystems are constantly in flux
- Work with local/indigenous communities in the goal of conservation

(Borini-Feyerabend, Kothari, & Oviedo, 2004)





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## Discussion

- Economy dependant on roads and interaction between geographic regions of Saraguro, Oña, and Nabón
- Yacuambi relies on natural resource use for income that has shifted significantly in the last 50 years, altering the landscape
- There is not complete connection between conservation, wetlands, and how it will affect them

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## Implications for Stewardship Approach

- Value of clean water
- Pride in nature
- Desire to conserve traditional practices
- Concern for future generations
- Saraguros apply culture to new landscape
- Daily living versus conservation.
- Situation in flux (new roads, rapid growth)
- Contention (mining and access to potable water)
- Varied demographics and outside influences



Questions?

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## Acknowledgements

- NSF Grant #0966672
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- Members of UTPL and U of I



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## Abstract

- The Southern Region of Ecuador houses 70% of the world's species and has membership in the UN conventions for biodiversity. Contentions are arising between stakeholders over conservation of biodiversity and resource use, such as agriculture and mining. This reports initial results of current social and cultural understanding of wetlands and the implications for this on a stewardship approach to managing a designated Ramsar Wetland. Findings suggest traditional social connections tie Saraguros to wetlands and other geographic regions. Meanings of these areas are diverse and the region is in flux.